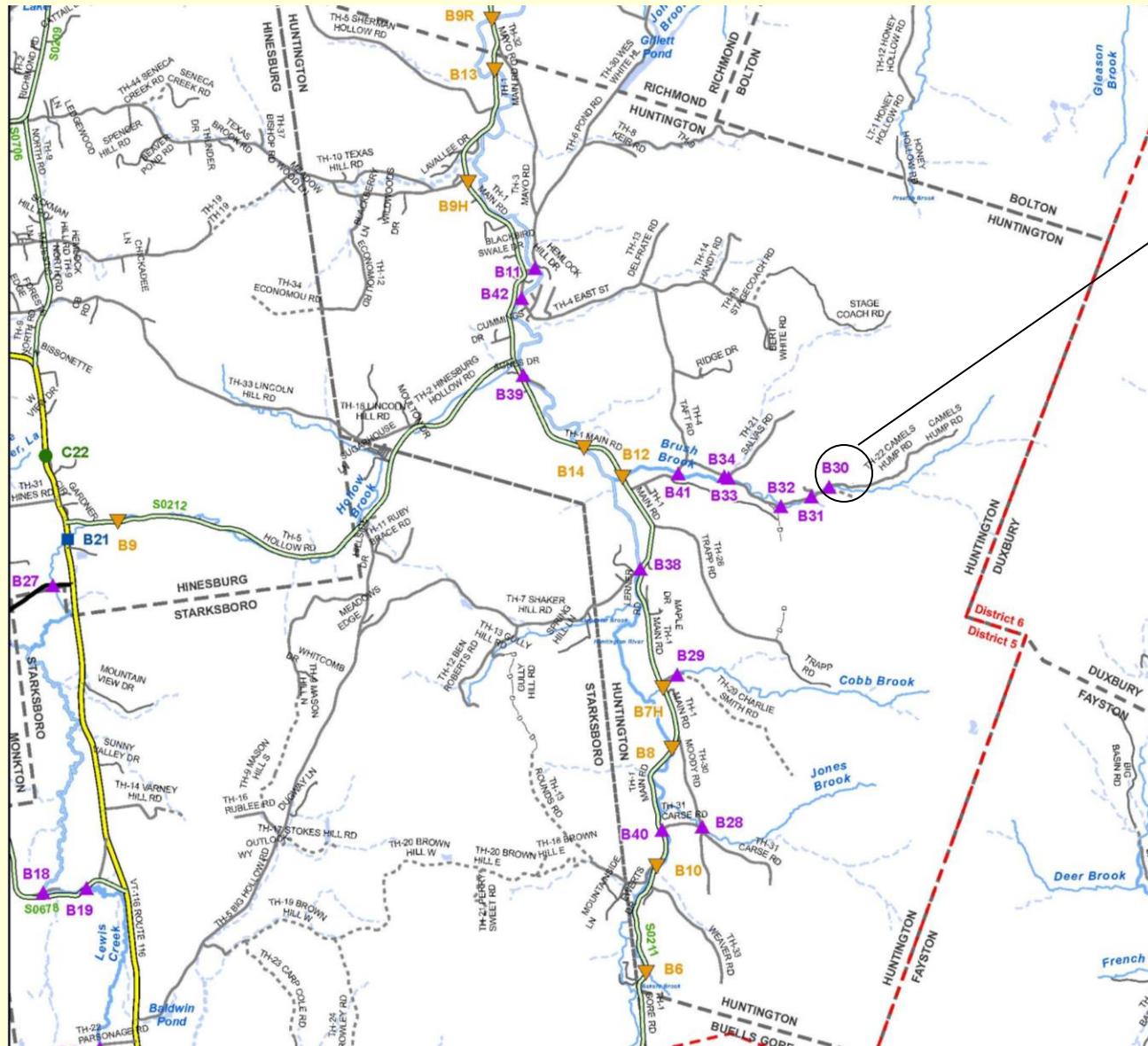


Huntington BRO 1445(35)
Bridge 30 on TH 22 (Camels Hump Road)
Over Brush Brook
Alternatives Presentation



PROJECT LOCATION



TH 22, Br 30

Meeting Outline

- Purpose of the Meeting
- Structures Section Re-organization
- Existing bridge deficiencies
- Alternatives considered
- Summary and recommendation

Purpose of Meeting

- Present the alternatives that we have considered
- Explain the constraints to the project
- Help you understand our approach to the project
- Provide you with the chance to ask questions.
- Provide you with the chance to voice concerns
- Build consensus for the recommended alternative

Accelerated Bridge Program

- Began in January 2012
- Bridges are deteriorating faster than we can fix them
- Accelerated Bridge Construction (ABC) is key
- Impacts to property and resources is minimized
- Standard details repeated on many projects
- Shift from individual projects to programmatic approach
- Accelerated Project Delivery
- Goal of 2 year design phase for ABP (5 years conventional)
- Goal of 25% of projects into Accelerated Bridge Program

Project Initiation & Innovation Team

- Part of re-organization in January 2012
- Currently team of 5
- All projects will begin in the PIIT
- Very efficient process
- Look for innovative solutions whenever possible
- Involved until Project Scope is defined
- Hand off to PM to continue Project Design phase

Phases of Development

Project
Funded

Project
Defined

Contract
Award

Project Definition

Project Design

Construction

Identify resources &
constraints

Evaluate alternatives

Public Participation

Build Consensus

- Quantify areas of impact

- Environmental permits

- Develop plans, estimate and specifications

Project Background

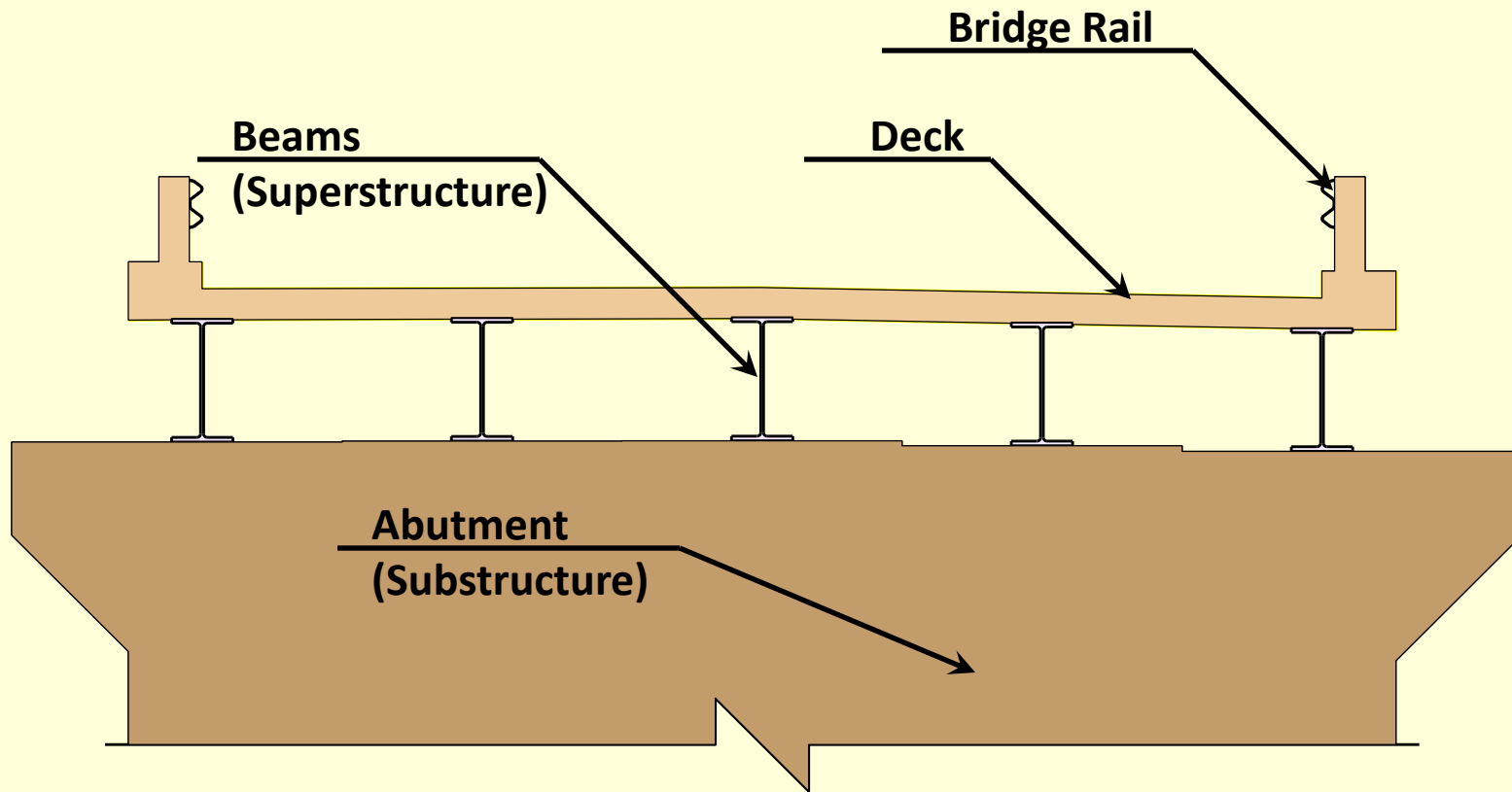
- **Priority 25** in the Town Highway Bridge Program
- The structure is owned and maintained by the Town
- TH 22 (Camels Hump Road) is a Class 3 Town Highway
- Existing bridge is a single-span rolled beam bridge with a timber deck
- Span of 27 feet and width of 12.5 feet
- The structure was built in **1925** (87 years old)
- Bridge is structurally deficient and has a Federal sufficiency rating of **18.9 (out of 100) -**

Project Background (Cont)

- Traffic Data

TRAFFIC DATA	2015	2035
AADT	270	290
DHV	55	60
ADTT	10	15
%T	4.7	5.3

Description of Terms Used



EXISTING BRIDGE DEFICIENCIES

Deficiencies

- The bridge width is substandard
- The bridge does not have adequate hydraulic capacity and has scour issues
- The bridge and approach rails do not meet the current standard

Inspection Report Information (Based on a scale of 9)

Deck Rating	4 Poor
Superstructure Rating	7 Good
Substructure Rating	5 Fair
Channel Rating	6 Satisfactory

Bridge Width and Railing Issues



North Abutment - Upstream



North Abutment - Downstream



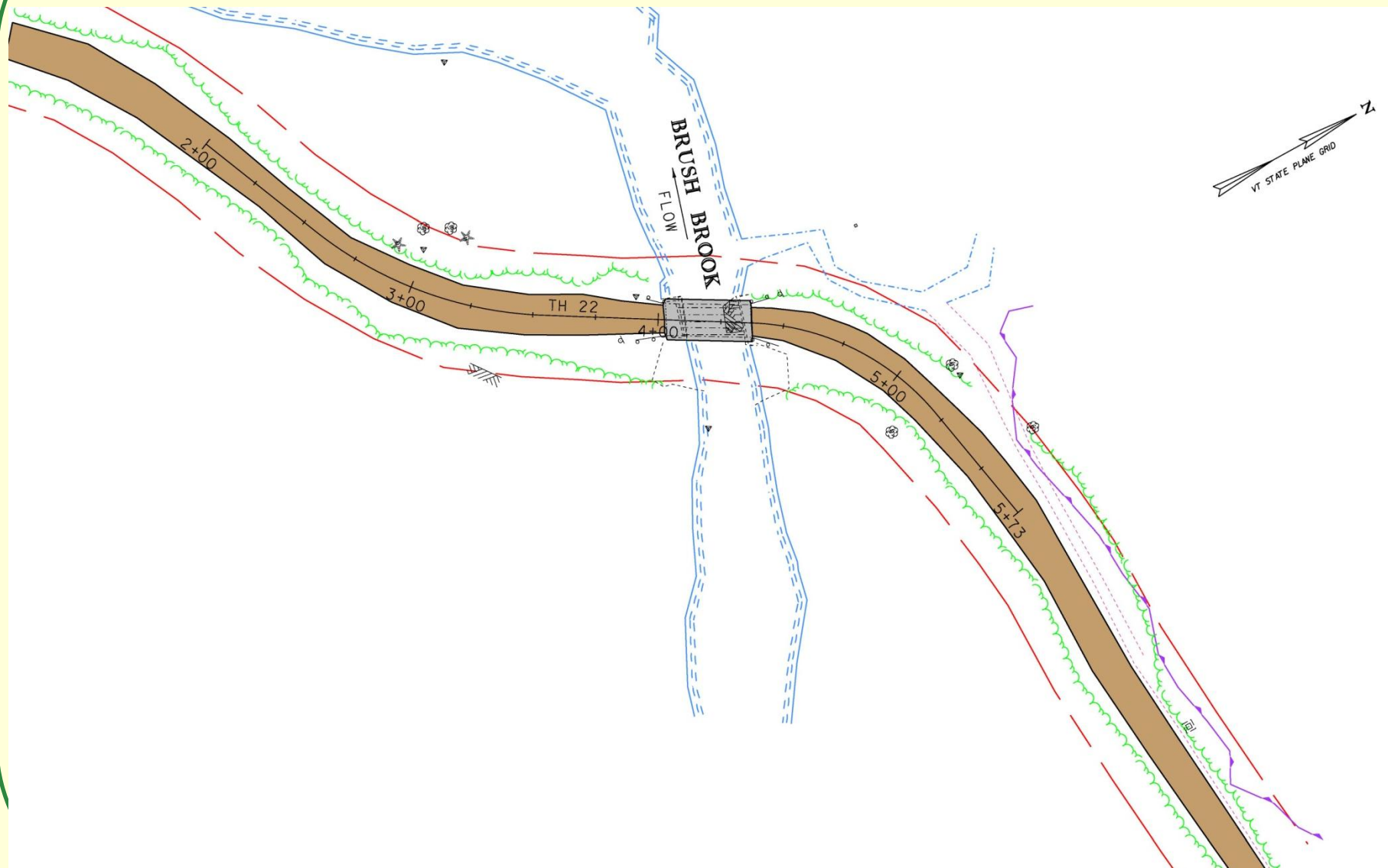
South Abutment



Existing Site Conditions

- Bridge Width (Face-Face Rail) = 12.5'
- Design Speed Limit = 20 mph (Posted speed)
- Posted for 16,000 weight limit (timber deck)

Layout Showing Constraints



Alternatives

1. Replace deck and rehabilitate superstructure and substructure
2. Superstructure replacement and rehabilitate substructure
3. Full replacement (phased construction)

Alternative 1 – Rehabilitate

- New timber deck (same width)
- Address scour at abutments
- Minor improvements to roadway (guardrail, etc)
- Extends life approximately 15 years
- Still need temporary bridge to maintain traffic
- Other substandard features will not be addressed-

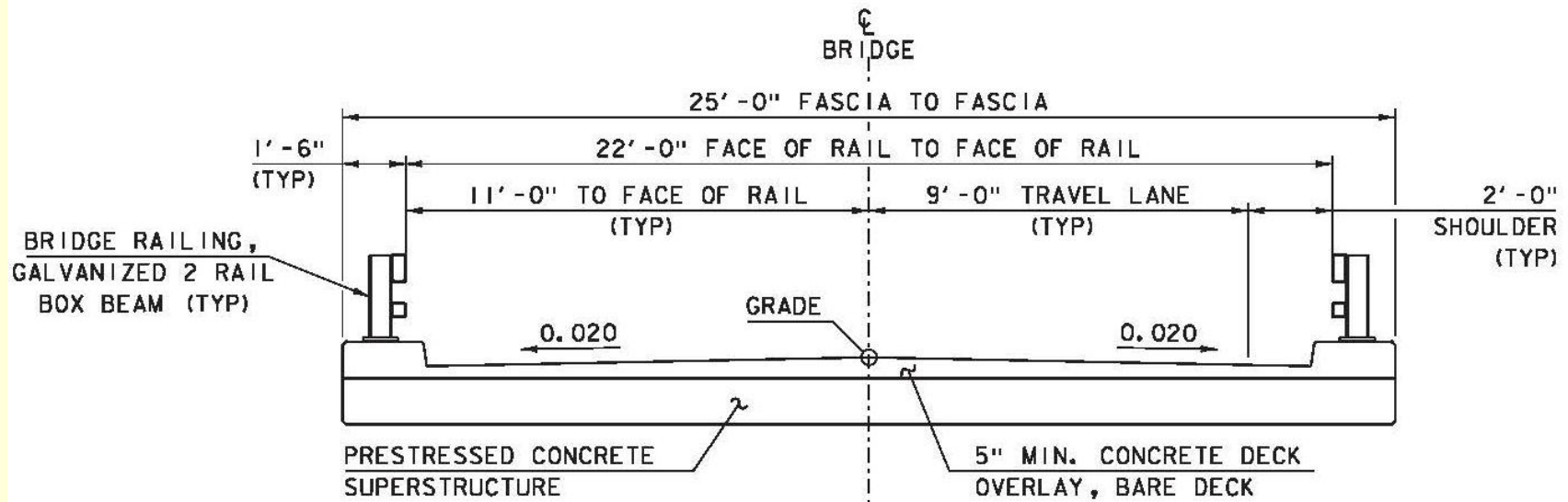
Alternative 2 – Superstructure Replacement

- Concrete superstructure replacement (same width)
- Address scour at abutments
- Minor improvements to roadway (guardrail, etc)
- Extends life approximately 30 years
- Still need temporary bridge to maintain traffic
- Other substandard features will not be addressed

Alternative 3 – Full Replacement

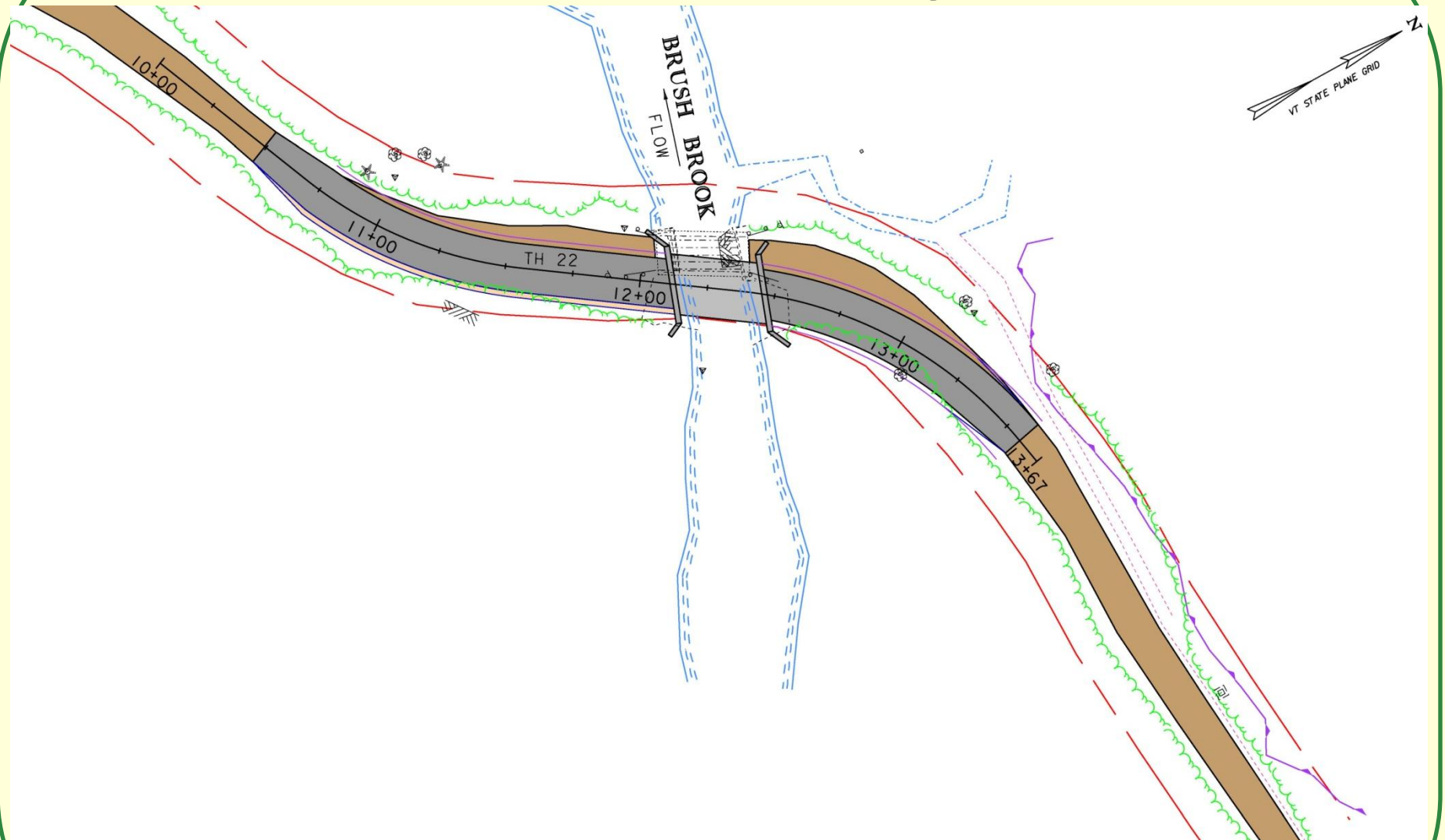
- Completely new bridge
- Width would meet required standards
- Alignment improved slightly (flatter curves)
- Longer span to address hydraulic issues
- Long term (80 year) solution
- Use phase construction to maintain traffic-

Alternative 3 – Typical Section

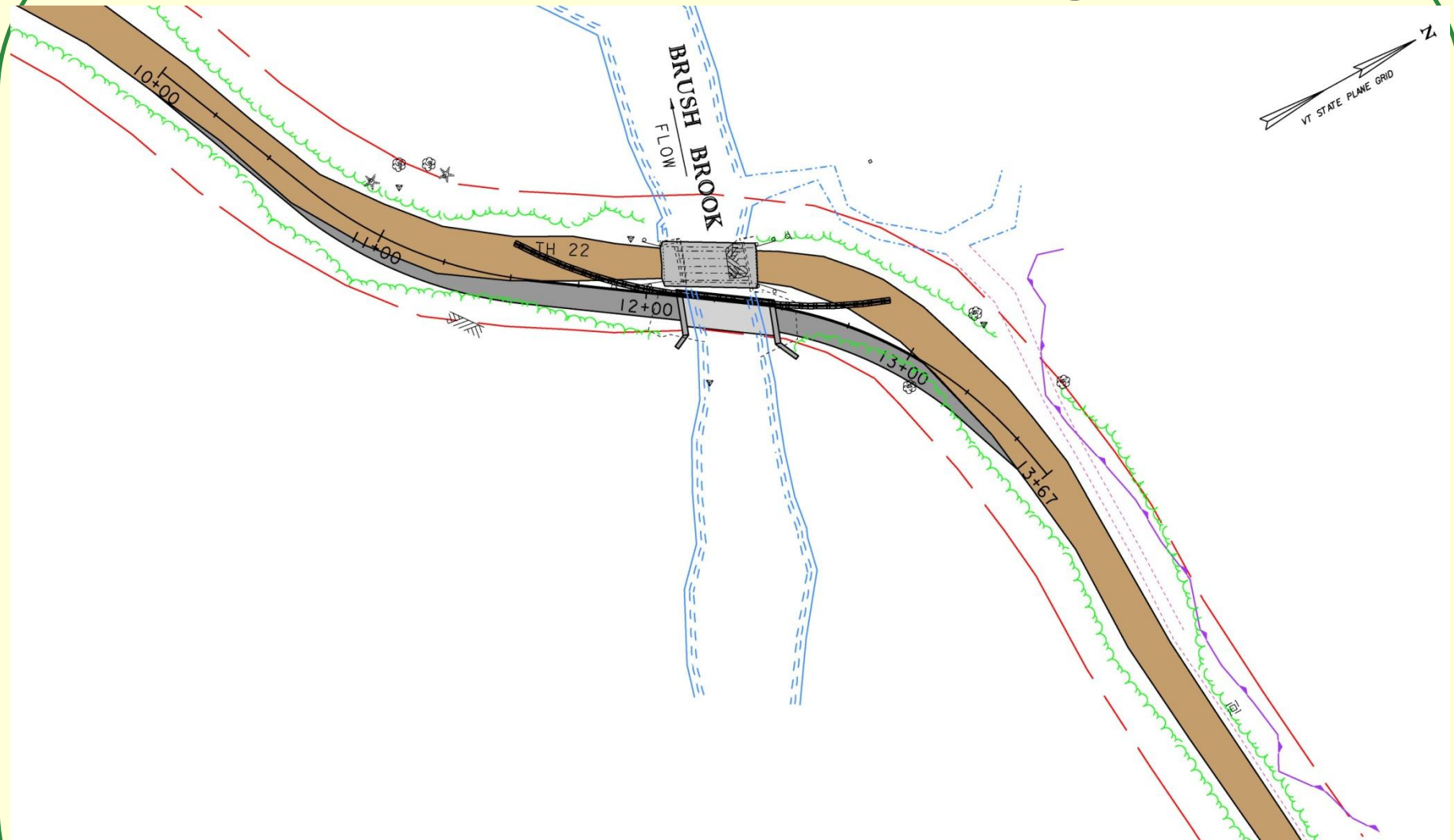


PROPOSED BRIDGE TYPICAL SECTION

Alternative 3 – Layout



Alternative 3 – Phasing



Alternatives Matrix

	Alt 1	Alt 2	Alt 3
	Rehabilitation	Rehabilitation w/ Super Replacement	Full Replacement
Temporary Bridge	\$65,000	\$65,000	\$0
Construction w/ CE and Contingencies	\$293,000	\$463,000	\$639,000
Preliminary Engineering	\$41,000	\$65,000	\$114,000
Right of Way	\$40,000	\$40,000	\$50,000
Total Cost	\$374,000	\$568,000	\$803,000
Town Share	\$18,700 (5%)	\$28,400 (5%)	\$80,300 (10%)
Design Life (years)	15	30	80
Project Development Duration	3 years	3 years	3 years
Construction Duration	6 months	6 months	6-8 months

Conclusion and Recommendation

- Recommend Alternative 3 – Full bridge replacement
- Long term (80 year) solution
- Addresses all sub-standard features-

Questions

